WHAT IS CLAIMED IS:

1. An image processing apparatus, comprising:

a size adjusting unit to, if regions are fixed in size and an image is not divisible into the regions, adjust the size of the image at a stage in an encoding process to form a size-adjusted image so that the size-adjusted image becomes divisible into the regions; and

an encoding unit to encode the size-adjusted image by the regions into a codestream.

2. The image processing apparatus as claimed in claim 1, wherein

the encoding unit encodes the size-adjusted image with a JPEG 2000 algorithm.

3. The image processing apparatus as claimed in claim 1, wherein

the size adjusting unit adjusts the size of the image by adding pixels of a predetermined pixel value to the image.

4. The image forming apparatus as claimed in claim 1, further comprising:

an information attaching unit to attach, to the codestream, information related to the size of the image before the adjustment of size.

5. The image processing apparatus as claimed in claim 1, wherein

the size adjusting unit adjusts the size of the image at a stage between a component transform and a discrete wavelet transform.

6. The image processing apparatus as claimed in claim 1, wherein

the size adjusting unit adjusts the size of the image at a stage between a discrete

wavelet transform and a bit modeling.

7. The image processing apparatus as claimed in claim 1, wherein the size adjusting unit adjusts the size of the image at a stage between bit modeling and arithmetic encoding.

8. The image processing apparatus as claimed in claim 1, wherein the size adjusting unit adjusts the size of the image at a stage after arithmetic encoding.

9. An image forming apparatus, comprising:

the image processing apparatus having

a size adjusting unit to, if regions are fixed in size and an image is not divisible into the regions, adjust the size of the image at a stage in an encoding process to form a size-adjusted image so that the size-adjusted image becomes divisible into the regions; and

an encoding unit to encode the size-adjusted image by the regions into a codestream; anda storage unit that stores the codestream generated by the image processing apparatus;

a decoding unit that decodes the codestream stored in the storage unit; and

a printer engine that forms an image based on the decoded codestream.

10. An image decoding apparatus, comprising:

a decoding unit to decode a codestream into a size-adjusted image; and

an inverse size adjusting unit to re-adjust the size of the size-adjusted image at a stage in a decoding process to form an original image based on information related to the size of the original image attached to the codestream.

11. A method of processing an image, the method comprising:

adjusting, if an image is not divisible by regions of a predetermined size, the size of the image at a stage in an encoding process to form a size-adjusted image so that the size-adjusted image becomes divisible by the regions; and

encoding the size-adjusted image by the regions into a codestream.

12. An article of manufacture having one or more recordable medium storing instructions which, when executed by a computer, cause the computer to perform a method comprising:

adjusting the size of the image, if an image is not divisible by regions of a predetermined size, at a stage in an encoding process to form a size-adjusted image so that the size-adjusted image becomes divisible by the regions; and

encoding the size-adjusted image by the regions into a codestream.

13. The article of manufacture as claimed in claim 12, wherein the computer, when encoding the size-adjusted image, encodes the size-adjusted image with JPEG 2000 algorithm.

14. The article of manufacture as claimed in claim 12, wherein the computer, when adjusting the size of the image, adjusts the size of the image by adding pixels of a predetermined pixel value to the image.

15. The article of manufacture as claimed in claim 12, wherein the method further comprises:

attaching, to the codestream, information related to the size of the image before the adjustment.